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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Review of the Section 251	)	**CC Docket No. 01-339,**
Unbundling Obligations of	)	**No. 96-98 &**
Incumbent Local Exchange Carriers	)	**No. 98-147**

DECLARATION OF ANTHONY FEA
AND ANTHONY GIOVANNUCCI
ON BEHALF OF AT&T CORP.

1. My name is Anthony Fea. My business address is 429 Ridge Road, Dayton, New Jersey. I am also a Division Manager with AT&T Local Network Services ("LNS") Planning and Program Management. I am currently responsible for LNS's national integrated planning activities. Integrated planning activities include the high-level planning and design activities for the Switch, Transport, Node, Digital Cross Connect Systems and Outside Plant technologies along with access planning for Local Service Offices and IXC collocations and network optimization. As part of my job, I am also responsible for the development of current and future years' capital budgets along with current year capital management responsibilities. I am a 1986 graduate of Stevens Institute of Technology, with a B.S. in Electrical Engineering. Since obtaining my degree, I have worked at a number of telecommunications firms including Bell Atlantic (now Verizon), Telcordia Technologies (BellCore), and most recently TCG and AT&T.

2. My name is Anthony J. Giovannucci. My business address is 429 Ridge Road, Dayton, New Jersey. I am a Division Manager with AT&T Local Network Planning and Program Management ("LNS"), the organization within AT&T Corp. that provides local service to

AT&T Business customers. In my current position I am responsible for a number of key areas of Outside Plant activity, including the development of an Outside Plant ("OSP") plan of record for capital deployment; negotiation and completion of agreements controlling rights of way ("ROW"), franchises and joint facilities builds. Additionally, I am responsible for the development and application of Standard Network Architecture Guidelines. Prior to my present position, I did contract work at various regional Bell companies (BellSouth) and operations companies between 1987 and 1993; from 1993 to 1998, I worked at TCG, which was acquired by AT&T in 1998.

3. As Division Managers in LNS Planning and Program Management we are part of a larger team that is responsible for the efficient planning, engineering, delivery and management of local network capacity, assets, and associated information services. In general, this team ensures that LNS optimizes the use of its limited resources and controls expenses while meeting end-user customers' expectations and allowing for an appropriate return on the company's investment.

4. The purpose of this declaration is to provide factual background regarding the development of the AT&T LNS network and the factors that explain the stark differences between the architecture and development of incumbent local exchange carrier ("ILEC") and competitive local exchange carrier ("CLEC") networks. In particular, this declaration will discuss the practical impairment AT&T LNS has encountered in the construction and enhancement of its local network.

I. The ILECs' Network Architecture Gives Them Enormous Advantages Over CLECs That Attempt To Deploy Transmission Facilities.

5. To understand the advantages that the ILECs' position as historical monopolists gives them, it is useful to begin by explaining briefly how the ILECs deployed their ubiquitous networks, and how AT&T deploys its local network today as a new entrant.

6. The ILECs deployed their local telephone networks as legally protected monopolists, and as such they were guaranteed the ability to serve all demand for telecommunications services for everyone, everywhere. The ILECs were also regulated under a regime that provided an authorized rate of return on all investment. Under these conditions, the ILECs were able to construct a network that not only addressed all current demand at low per-unit cost, but also potential demand far into the future.

7. Most of the cost of deploying transmission facilities is not in the conductor itself (whether copper or fiber), but in the supporting infrastructure – the trenching, poles, conduits, rights of way, and building access. The ILECs, as protected monopolists, were guaranteed the ability to serve all demand, and therefore they were able to construct an efficient and ubiquitous network consisting of high capacity transport and loop feeder plant reaching every neighborhood and locale in an area. Because the ILECs were assured of serving all demand, they could spread the high fixed costs of deployment over virtually all customers, both large and small and achieve very low per-unit costs.

8. In particular, the ILECs built their loop and transport plant to maximize these efficiencies. For example, in their loop plant, the ILECs built high capacity feeder plant to connect their central offices with every neighborhood, and then built progressively low

capacity lines to connect these intermediate points to each customer premise. As a result, whether the conductor used is copper or fiber, the ILECs already have feeder and distribution plant built to vitally every location in an exchange area, and the ILECs can serve new customers or add new services merely by making incremental changes in existing loop plant. Indeed, even in a so-called "greenfield" build, with rare exceptions the ILEC can serve such locations merely by making incremental modifications to its existing plant. The same is true of transport. The ILECs already have ubiquitous fiber transport networks in place that connect all of their central offices, and in almost all circumstances ILECs can add capacity to these networks merely by making relatively inexpensive upgrades to the attached electronics.

9. Moreover, as the ILECs deployed their local networks, they designed their infrastructure to accommodate not only existing demand, but demand well into the future. Further, as the sole providers of service, ILECs could justify the extension of facilities into areas of anticipated demand, often years before that demand actually materialized. The ILECs also had other significant advantages. For example, as the sole provider of a utility service, ILECs were granted comprehensive rights of ways by local governments, often accompanied by the power of eminent domain, without the requirement to compensate the governmental entity. Similarly, building owners and developers viewed ILEC access to their buildings as essential to their own businesses, and in turn, provided not only access to their properties but also financial support or incentives to ensure their tenants would have high-grade connectivity to the local network. This, in turn, helped to make their buildings attractive to potential tenants and to retain current tenants.

10. The ILECs' ability to deploy their networks under these conditions has provided them with a enormous advantage over time. For virtually any customer a CLEC might want to serve, the ILECs have *already* deployed transmission facilities to reach that location, and critically, they are *already* recovering the high fixed cost of those facilities spread over a base of a large number of customers. As demand increases, and the need for service over larger areas arises, the ILECs are thus able to add new services, capacity, or new customers by using existing facilities with relatively inexpensive, incremental additions (*i.e.*, in many cases simply by adding electronics to dark fiber or upgrading electronics on previously lit fiber).

11. In sharp contrast, a CLEC cannot rely on either guaranteed demand or a guaranteed return. Therefore, an entirely different set of factors must underlie a CLEC's decision to build a competitive local network. The most important is the specific demand for the CLEC's local services from specific customers in specific locations. Also crucial is the existence of favorable conditions for facility construction, including the ability to obtain rights of way and building access and the potential to partner with other carriers to share initial expenses. The CLEC must also consider the availability and price of wholesale facilities from the ILEC, because a CLEC generally cannot reach any end-user customer without access to at least some ILEC facilities.

12. AT&T's current local network includes switches and outside plant (including both backbone network fiber optic rings and access to specific buildings and customers) in 85 MSAs nationally.[1] Although many of those markets were already established when

[1] AT&T also uses its "Class 4" long distance switches to provide local service through its AT&T Digital Link ("ADL") product. ADL, however, is not a standalone local product but rather one

AT&T acquired TCG, since that time AT&T has both expanded its footprint in existing markets and begun offering facility-based competition in 31 new MSAs. AT&T's networks now include 116 switches (not counting Media One switches), and 17,598 fiber route miles. Thus, it is clear that AT&T prefers to use its own facilities where it is practical and economic to do so and capital is available to support construction.

13. AT&T's decision to enter a new market necessarily includes a decision to install a local switch, which initially would serve large business customers but would have the potential to expand to serve other customer classes.[2] AT&T must also determine the most economical and reliable method for establishing connections from its switch to customer end-users, *i.e.*, whether and how to deploy outside plant, including collocations.

14. Ideally, AT&T would like to provide service to its local business customers entirely on its own, modern network. The provision of service to all but a very small set of such customers, however, is virtually impossible without the use of ILEC facilities. AT&T prefers to provide service entirely over its own facilities, because doing so allows AT&T to control the service from end-to-end, thereby avoiding reliance on other carriers to maintain service quality and enabling AT&T to provide the best customer experience. Thus, when AT&T serves a customer, its first choice is to provide service entirely with

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that allows AT&T long distance customers to add local voice traffic to their dedicated facilities that handle voice and data transmission. This permits customers to maximize efficiency by using the same trunks for local, intraLATA, long distance and international calls. Customers that subscribe to ADL service must use DS-1 or higher level facilities and must also employ sophisticated CLE on their premises.

[2] Of course, the use of AT&T's switches to provide dial tone to a broader range of customers is absolutely dependent on its ability to obtain loops, including high capacity loops, at TELRIC prices and the capability to migrate customers to AT&T's service in a seamless and commercially reasonable fashion. Those conditions do not exist today.

AT&T's own network. As explained below, however, such arrangements are only available to serve a tiny fraction of AT&T's largest business customers.

15. As described in previous declarations,[3] AT&T connects its customers to its own network using two distinct methods. Under the first method, referred to as "Type I" provisioning, AT&T provides the connection between the end-user customer and AT&T's network entirely on AT&T owned and operated facilities. In these situations, AT&T either owns or is economically able to justify building facilities to the end-user's premise. The second – and by far more common – provisioning method, is referred to as "Type II" provisioning, in which AT&T leases from another carrier some portion of the equipment or facilities used in providing connectivity to the end-user's premises. When it uses Type II provisioning, AT&T has determined that it does not have, or cannot feasibly build, facilities all the way from its network to an end-user's premises.

16. To the extent that there is a standard AT&T/LNS local network architecture, its foundation is a "ring" design based on self-healing, SONET switching equipment. The ring architecture allows the "signal path" to switch from the "east" direction to the "west" direction around the ring based on manual and automatic setup of the multiplexing facilities. This design, which relies on physical diversity in all routes and location entrances,[4] provides the most reliable network and protects against events such as cable cuts or severe weather that can paralyze a more traditional network.

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[3] *See* Frontera-Lesher Dec. ¶¶ 18-20; Fea-Taggart Use Restrictions Dec. ¶¶ 3-4.

[4] Physical diversity is defined as distinctly different routing of the fiber cable such that there are two distinct routes in the right of way and between the served locations that maintain a defined

17. LNS's network is made up of two distinct ring types: Backbone and Customer Rings. In general, the Backbone provides high bandwidth trunking and transport between LNS's own facilities, including its switch. The Backbone ring is laid out to support the deployment of SONET rings and/or asynchronous equipment and is based on physically diverse, redundant point-to-point connections between LNS nodes. The nodes, or peripheral processors, do part of the processing required to perform the ring's function. The nodes also serve as access points on the ring where digital information enters, exits or is further processed. The location of the backbone is tied both to the anticipated potential for demand and the availability of existing facilities from which to leverage expansion. For example, in many of the original TCG markets, TCG had access to the fiber network of one of its cable owners from which to begin its network design.

18. Customer Rings also support the deployment of SONET rings. Traffic on these facilities is generally reserved for the lateral connectivity of specific customers and/or locations that require connectivity to the Local Service Node, where services can be routed to Backbone and associated rings as necessary. These rings are used for connections to IXC Points of Presence ("POPs"), ILEC Central Office locations ("LSOs"), common space locations and single tenant customer locations.

19. There are two sub-categories of Customer Rings: Sub-rings and Customer Laterals. Sub-rings are routes that physically split from and extend the main cable to make AT&T local service available in a specific area such as a technology center, college campus, business park or isolated section of a business district. The intent of the sub-ring is to route the

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physical distance between each route, and two entrances to a location, with each entrance maintaining a defined physical distance from the opposite entrance.

diversely based fiber layout in such a way as to optimize the distance that laterals must be built to access the customer location, and to optimize the network to allow access to future customers in that general area.

20. Customer laterals are the fiber extensions that physically leave the main distribution cable or sub-ring and deliver service to a specific building or location. The impetus for the construction of laterals generally comes from a new customer or specific business case. Construction of such laterals generally must be justified based on committed traffic. Customer laterals are not a preferred architecture, however, because unlike other parts of the network, customer laterals do not have the diversity needed to prevent outages. Ideally, LNS seeks to position its rings as close as possible to the customer building.

21. When AT&T constructs its network collocations are then placed (1) to be in close proximity to the LNS network; and (2) to coincide with existing customers' LSOs. Other factors, including the both initial and recurring collocation costs and the availability of collocation space, also influence collocation decisions. In the past, the second factor – the existence of customers served off a particular LSO – was often considered the more important factor to determine collocation placement. After AT&T entered into its original interconnection agreements and collocation space first became more widely available, the company actively sought to place cages in almost as many ILEC LSOs as possible, with the intention of building facilities to put these collocations 'on net' over time.[5] However,

[5] There were many factors that influenced AT&T to acquire and build out a number of collocations through out the ILEC footprint. In addition to the obvious motivation of having access to the largest pool of customers available, from 1996 through 2000, collocation space was in high demand, often with dozens of both facilities-based CLECs and DLECs seeking space. Since the collocation space is offered on a 'first come, first in' basis, it appeared that a provider who was not among the 'first in' was likely to be required to use the less desirable virtual collocation or

over time it has become apparent that due to the high cost ILEC transport and collocation, along with the inevitable operations hurdles (including ROW) , the investment in collocations in anticipation of some day having sufficient customer demand was not economically feasible. Instead, it became apparent that collocations must generally be 'on net,' *i.e.*, in a location where the interoffice transport facilities are self-provisioned, in order to be cost effective. This is true for all business customers, especially for smaller business customers served with a combination of self-provisioned switching and UNE loop.

22. In entering a new market, AT&T first builds backbone and high-capacity facilities, and uses lower capacity (*e.g.*, DS-1 or DS-3) facilities from other carriers, almost always the incumbent. Therefore, as with the ILECs' networks, the logical development of the network is to (1) build the largest "pipes" first, *i.e.*, establishing the backbone; (2) progress to smaller "pipes", *i.e.*, customer rings; and then (3) establish the smaller customer laterals.[6] While the architecture used by AT&T includes current technology designed to make a network both efficient and reliable, the difficulty of cost justifying the construction of such a network, along with a number of significant practical impairments,

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potentially be shut out of a LSO. Additionally, many of the more efficient collocation alternatives now available (*e.g.*, ability to use smaller, shared space without a separate cage), were not available prior to the FCC promulgation of collocation rules. Today, both the thinning of competitors and the requirements of the Commission's most recent collocation order have dramatically changed the demand level for collocation space. Finally, the original decisions were made with the belief that AT&T would be able to obtain transport at TELRIC rates. As explained in this declaration, that expectation has never been met.

[6]It is critical to note that this progressive expansion of the network is only feasible to the extent CLECs also have access to the use of enhanced extended loops ("EELs"). By providing access to end-users served in LSOs beyond those in which the CLEC has a collocation, EELs allow the CLEC to concentrate traffic and optimize existing collocations while also reaching customers and locations that will ultimately justify further expansion.

not only makes ubiquitous deployment impossible, but also severely limits the ability of AT&T or other CLECs to deploy a network that is sufficiently comprehensive to serve all but a small number of customers totally "on net."

23. This contrasts starkly with the conditions under which the ILECs built their networks. CLECs' network growth is tied directly to the number of customers served and the amount of traffic they generate, (and thus their ability to cost justify the initial build – assuming that capital is available for the project. ILECs, however, were able to build their network with the assurance of serving 100 percent of the demand in any one area and with no concern for the availability of capital because of their assured rates of return. This fundamental difference requires a CLEC to develop its network from the core (*i.e.*, backbone and switch) outward to its nodes, and then ultimately, to the customers. ILECs, on the other hand, did not have to focus on obtaining the economies of scale needed to build loop plant. Instead, the ILECs merely had to design and build efficient loop plant reaching all end users, and then design the rest of its network to interface with its loops.

II. CLECs Face Numerous Impairments In Deploying Their Own Transmission Facilities.

24. As noted above, AT&T's first choice is always to build its own network to serve customers (*i.e.*, to establish a "Type I" arrangement). CLECs such as AT&T, however, face numerous impairments in deploying their own transmission facilities. We will begin by discussing the numerous impairments that AT&T faces in deploying its own transport facilities, and the lack of available CLEC alternatives when AT&T is unable to do so.

Then we will discuss the many additional impairments AT&T faces in deploying its own loops.

A. Impairments In Deploying Transport.

25. When AT&T considers whether to build its own interoffice dedicated transport facilities to an ILEC LSO, most LSOs can be eliminated right off of the bat, because most LSOs do not have sufficient volume to economically justify such construction. Indeed, in 70 percent of the ILECs' LSOs, AT&T does not have sufficient traffic to fill a single DS-3 facility to reasonable levels of utilization – and no such construction can be justified without the expectation that the facility will be used to support numerous DS-3's worth of traffic [7] Thus, facilities-based entry in the vast majority of LSOs is infeasible. And even where sufficient volumes may be anticipated, AT&T must have the collocation necessary to connect its self-provisioned facilities. Notably, even in the places where AT&T is collocated, more than two-thirds of its collocations utilize ILEC interoffice transport facilities, virtually all of which is purchased as high-cost special access.[8]

26. Today, AT&T has special access circuits into approximately 11,500 unique LSOs, and in general, each LSO is connected to two AT&T POPs. Thus, there are approximately

[7] In determining the feasibility of bringing an ILEC LSO "on net", LNS determines the cost of construction (including the transport, building entrances, ring electronics, collocation cage and other charges from the ILEC) and then compares that with the cost savings from no longer leasing the transport from the ILEC. However, even this analysis is insufficient unless the costs of the remaining facilities needed to reach the end-use customer are based on TELRIC.

[8] While such transport is used to provide local service, the current "interim" use restrictions and ban on commingling make it difficult, if not impossible, to access unbundled high-capacity facilities as UNEs. The only exception is in New York, where the NYPSC has expressly made high-capacity facilities available at UNE rates.

20,900 unique LSO-POP combinations.[9] Duplicating these facilities would be almost impossible, both because of the sheer numbers of the facilities required to connect these LSOs to the AT&T network and because many of these facilities are very low capacity circuits.

27. However, even in the relatively small subset of cases when it could make business sense to build our own facilities, the economy and general poor conditions for telecommunications companies has also had an unexpected impact on projects that AT&T currently has under construction.

28. For example, AT&T often engages in joint builds with other CLECs in order to share the high fixed costs of construction. In the last several months, however, many firms with whom AT&T was building outside plant facilities have filed for bankruptcy. In one case, AT&T entered into "Joint Build" agreements[10] covering 11 cities with another carrier. AT&T entered into each agreement because it had been able to justify the extension of its own network to serve customers in a particular location. Unfortunately, by last summer, the other carrier no longer had the resources to continue on those projects in which it was the "lead" and stopped construction, even though AT&T had advanced as much as 50% of the costs on some of those projects. In spite of AT&T's efforts to work with the

[9] The vast majority of these facilities (approximately 96 percent) connect to the RBOCs (SBC, Verizon, BellSouth and Qwest).

[10] Under the terms of a "joint build" agreement, two or more carriers agree to share the cost and usage of new facilities. In these circumstances, one of the firms is identified as the 'lead' partner, and undertakes the actual construction of the facility. The remaining carriers do not take possession of their part of the facility until construction concludes and acceptance testing is completed. Depending on the terms of the parties' agreement, non-lead parties may make significant payments toward construction costs prior to the assets being transferred.

carrier to find an alternative plan that would allow construction to continue, the construction remained at a standstill until earlier this year when the carrier filed for Chapter 11 bankruptcy protection. The partially built facilities are now part of the bankruptcy estate, and their future will not be determined until the completion of the bankruptcy process. In the meantime, AT&T has no choice but to continue to rely on ILEC facilities to serve customers. [11]

29. There are a number of other factors that preclude using a Type I arrangement in many offices, including: (1) the construction difficulties detailed below; (2) prior volume and/or term commitments that make it uneconomical to convert facilities because of termination liability penalties; (3) exhaustion of collocation capacity; (4) distances between the LSO and POP that are too long to make construction economically feasible; and (5) lack of assurances that the conditions required to make the business case (*e.g.*, size and term of customer contract) will not evaporate.[12]

30. New network construction is very time consuming. Often such construction requires cooperation from the local authorities andother carriers and can take months, or even years, to complete. But customers typically seek service in timeframes measured in days or weeks. As a result, when faced with significant construction delays, AT&T must rely on the other suppliers able to meet those time constraints. The choice is generally a

[11] Nor is this example an isolated incident. In almost all of the joint build arrangement AT&T currently has, at least one, and often most, of the other carriers are either in bankruptcy or severe financial condition.

[12] These factors are also dependent on AT&T's ability to obtain the remaining facilities needed to reach the customer, in particular interoffice transport and tails, at TELRIC prices.

choice of one – the ILEC. This is especially true because the construction process often is fraught with hurdles that slow, and at times can even stop deployment.

31. In particular, deploying new dedicated transport facilities involves a sequence of critical steps and failure or delay in any one of those steps could halt a build. First, a CLEC must negotiate a right-of-way agreement with the local municipality where the CLEC seeks to provide service. Municipalities often demand exorbitant fees and other onerous conditions. Although a typical franchise agreement may take between four and six months to negotiate, AT&T has franchise negotiations (and accompanying litigation) that remain unresolved after several years. Further, even after a franchise agreement is reached, a municipality's ratification process can add as much as 60-90 days before construction can begin. These types of problems are not isolated incidents; AT&T has experienced such delays and additional costs across the country.

32. While Section 253(c) of the Act allows municipalities to be compensated for the costs they incur as a result of managing the use of public rights-of-way by telecommunications providers, both the federal law, and in many cases state law, prohibit municipalities and other governmental entities from actually profiting from rights-of-way fees. In spite of this clear prohibition, often encounters blatant examples of municipalities over-reaching in establishing franchise-type fees.[13] For example, Colony, New York, has passed an ordinance requiring carriers to pay an annual fee of 5% of gross revenues, in addition to excessive application fees and in-kind contributions of dark fiber. White Plains, New

[13] The terms 'franchise' and 'right of way' are often used interchangeably to describe the permission needed to actually construct telephone facilities. However, the permission a LEC seeks from the municipality is the ability to access rights of way within the municipality to build. The 'franchise' or actual right to provide telecommunications service is granted by the state PUC.

York has sought to impose a similar fee, and has extended its definition of 'gross revenues' to include the revenues of all the carrier's affiliates and subsidiaries. Eugene, Oregon is attempting to charge AT&T a fee of 9% of gross revenues. AT&T has been forced to litigate this fee, and the case is now pending before the Oregon Supreme Court.

33. The recent economic downturn has served only to enhance this trend. The Mayor of Boston recently announced his desire to implement a franchise fee on telecommunication providers of 5% of a provider's gross revenues. In proposing this fee, the Mayor specified that the fee would allow the city to 'raise revenue' to meet Boston's budget needs. While the City Council ultimately rejected the implementation of such a fee, the proposal is illustrative of a common problem faced by AT&T, particularly when other economic factors affect municipalities' other sources of revenue, including taxes.

34. The imposition of other extraneous and burdensome regulations are also often included in connection with government entities' granting of a franchise. Despite clear FCC and court decisions delineating precisely what falls within the rubric of rights-of-way management and what does not, many local authorities continue to require compliance with regulations that are unrelated to the management of rights-of-way, but instead seek to control other carrier operations.

35. Perhaps the greatest burden on CLECs are unreasonable delays in the granting of access to rights-of-way. For example, AT&T has had a long running ROW saga in Dearborn, Michigan. TCG began negotiating a franchise agreement with Dearborn, Michigan more than seven years ago. Through the entire negotiations Dearborn has sought provisions in the franchise agreement that were clearly beyond its authority, including a yearly fee of

4% of gross revenues. Although, in 1995, the Michigan state legislature adopted a statute governing the issuance of permits to use public rights of way and requiring municipalities to grant or deny a providers application and the permissible fees for such an agreement, Dearborn continued to insist upon provisions that are contrary to Michigan law. TCG initiated litigation and finally, in February 2001, AT&T received a State court decision ordering Dearborn to issue the appropriate permits. In spite of that order, however, AT&T is still waiting to complete the franchise agreement.

36. Another glaring example of this delay is in White Plains, New York. After almost eight years negotiating with the city for permission to deploy facilities (including a six month period in which the City Attorney refused to return AT&T's calls), AT&T was forced to seek relief in federal court in an attempt to obtain reasonable terms for access to rights-of-way. Almost ten years after it began the process, and despite thousands of dollars in litigation costs, AT&T still has no agreement with the City.[14] Therefore, although AT&T has a fully functioning switch in the area, it is limited to offering service on a Type II basis. As a result, AT&T has a investment of approximately $4 million in switching and backbone facilities that can only be used at a very low level of their capacity.

37. AT&T's experience in Hawthorne, California, provides another vivid example of the efforts required to complete even a small part of its local network. Under California law, certified telecommunications providers are not required to enter into a franchise agreement with individual municipal entities. In compliance with this law, AT&T built

[14] *See, e.g.*, Brief of the FCC as *Amicus Curiae*, *TCG* v. *City of White Plains*, No. 01-7213 (L), p. 4 (2d Cir.) (filed June 12, 2001) (noting that TCG began seeking permission to provide service in White Plains, New York in 1992 – almost 10 years ago – and is still unable to obtain it).

its backbone facilities in Hawthorne. After the completion of those facilities, but before AT&T was able to build to specific buildings, Hawthorne adopted an ordinance that required carriers to supply customer proprietary information in order to evaluate the customer's use of AT&T's services, in an attempt to label certain services "non-telecommunications" services to allow Hawthorne to apply previously unavailable fees to those services. Shortly after the ordinance became law, AT&T attempted to add diverse access to a commercial building in order to serve a customer. Although AT&T needed only 50 feet of access (two facilities providing diverse connection from two manholes to the network's SONET ring and the building), Hawthorne refused to provide AT&T the necessary right of way, demanding that AT&T provide information about its customer and the customer's use of the facility. Hawthorne finally relented on its demand after more than a month of negotiations with AT&T and the filing of a lawsuit by another carrier.[15]

38. To avoid these delays, CLECs have three choices: they can accept these burdensome and discriminatory conditions;[16] use the existing facilities of the incumbent; or forego

[15] In Austin, Texas, the City is currently considering proposed revisions to its rights-of-way ordinance that would formalize a process that extends the application process to between six and twelve months.

[16] Recently, AT&T faced a situation in which Redondo Beach, California, sought to impose unlawful fees. Only after marathon negotiations and the establishment of a complex set of agreements between the city, AT&T and AT&T's customer, and a commitment by the customer to provide compensation to the city, was AT&T able to begin construction.

competing to provide service to customers. None of these alternatives put a CLEC in a practical position to compete.[17]

39. Not only must the CLEC seeking to build negotiate with local municipalities, but it is likely the CLEC will also need to negotiate additional agreements with other parties, including the ILEC. Such agreements may address the use of existing rights-of-way capacity or developing new right-of-way capacity on the CLEC's desired route. Finally, even the conclusion of negotiations does not necessarily signal the end to the delays to the start of construction. Many municipalities have specific provisions requiring carriers to build facilities jointly (*e.g.*, coordination of street digging), and some municipalities have placed restrictions or moratoria on new construction. All of these requirements add complexity, cost, delay and uncertainty to any attempt to obtain a permit and initiate construction.[18]

40. Even if AT&T obtains all of the necessary authorizations (rights-of-way, building access), that is only the beginning of the process. Once all these steps have been

[17]The final option open to AT&T or another CLEC is to simply anticipate them and build facilities well in advance of customer needs, much the same way the ILECs originally built their networks. Unfortunately, the realities of the market, including the CLECs' current inability to obtain capital, demonstrate that this "build it and they will come" option is simply the road to insolvency.

[18] It is important to note that even in circumstances in which these provisions are presently applied equally to all carriers, the ILEC is likely to have obtained its franchise and accompanying benefits prior to the imposition of the current requirements. This often leads to situations where municipalities seek significant payments or benefits from the CLECs that were not originally imposed on the ILEC (*e.g.*, to have part of the CLEC's network assigned to the municipality). Further, it is not uncommon for municipal ordinances to allow existing providers, *i.e.*, the ILEC, to be "grandfathered." Additionally, as the first occupier of conduit, ILECs have another advantage. It is our general observation that ILECs routinely retire copper facilities 'in place' and only pull out the retired copper when they have a need for additional new facilities. This practice effectively allows the ILECs to reserve space in the existing conduit, while at the same time making it unavailable to other providers who need it immediately.

successfully completed – and assuming the customer is still willing to wait for service – the CLEC is then in a position to begin constructing the necessary facilities. As with any type of construction project, unforeseen problems including labor and equipment shortages can delay completion.

41. Even under ideal conditions, it takes a minimum of twelve months for a facility to become "revenue ready" – *i.e.*, ready to provide service to a customer or customers subtending a particular central office. Such ideal conditions include (1) prior existence of any necessary rights-of-way, or circumstances; (2) availability of collocation space; (3) all construction proceeding without unforeseen delays; and (4) ready access to the customer's premises within the building. In our experience, the chances of all of these conditions being satisfied at a location are almost nil. Indeed, in many cases the difficulties described above can add months, and even years to the process. At times AT&T may be forced to abandon plans to build within a market because the obstacles are simply too great.

42. The complexity of this process for CLECs, combined with the significant expense, creates a substantial disparity between ILECs and CLECs, and provides the incumbents with a considerable competitive advantage. For example, because ILECs have already developed an extensive interoffice facility network, they generally do not need to seek additional rights-of-way. Moreover, where the ILEC has already been deployed fiber to the premises, as is most often the case, it can add substantial capacity by merely changing electronics in the central office. This is far less cumbersome than the steps that a CLEC must complete to get the same capacity. Thus, even if the ILEC must modify its existing plant to serve a particular new customer need, its ability to do so is generally limited only

by factors within its own control – for example, upgrading electronics to increase fiber capacity, work-force availability considerations or pulling cable through conduits that already exist.

43. In addition, as noted earlier, construction typically involves deploying a "SONET ring" architecture (or some other means of network redundancy). A "SONET ring" is a form of "self-healing" network architecture that provides unique reliability for customers, because it employs diverse routing to ensure continued service even when particular segments of the ring are accidentally cut or experience other technical difficulties. Generally, this diverse routing is accomplished by constructing two physically separate fiber paths in a closed chain or "ring." The key fact to note is that the route diversity often results in doubling the difficulties a CLEC must overcome before the project even begins. To implement a redundant network design, CLECs often need multiple rights-of-way, and may have to negotiate access to each of them-way with one or more entities, including municipalities, incumbent LECs or other parties.[19]

44. CLECs must also establish appropriate collocation in order for self-constructed interoffice transmission facilities to be of much value. Because virtually all customer loops terminate in ILEC offices, in order to connect these loops to the CLEC's network, some form of collocation is ultimately required. Obtaining collocation is also accompanied by its own set of impairments, including lengthy ILEC application

[19] Further, the conditions needed to use alternative methods of connectivity are often very limiting. For example, AT&T owns licenses to deploy fixed wireless (38 Ghz) technology in a majority of the MSA in which it provides facilities-based local service. While AT&T is occasionally able to use this technology to reach an end-user customer, in most cases the requisite topography and site lines to use it do not exist.

processes, unclear space disposition or LSO space exhaustion, and significant space preparation and use charges. Other factors that impact the costs of using collocation in a network design include remote placement of collocation space (*i.e.*, within an LSO but far from the frame) that may require added copper connectivity; unreasonable power delivery and riser charges; ILEC imposition of government-mandated building code upgrades that should be covered by the ILEC (*e.g.*, asbestos removal and compliance with Americans with Disabilities Act); ILEC premium charges for 'preferred' contractors and consultants; and charges for unneeded or unnecessary services or quantities of service.[20] As noted above, under today's business conditions AT&T has found that a number of its existing collocations are not economic, even for the largest customers.

45. Further, there is no reasonable alternative to collocation within an ILEC LSO. Although the ILECs have attempted to make much of the availability of collocation "hotels," these are generally designed for and used by carriers offering *specialized* services including ISPs, Application Service Providers, Integrated Communications Providers, data storage companies, voice processing companies and enterprise companies. Therefore, while these hotels can provide needed access for these providers to connect with each other, the primary collocation needs for CLECs such as AT&T that offer a full array of local services, including local voice service, is the need for access to the ILECs' network facilities. This need can only effectively be served by collocation within an ILEC LSO.

[20] For example, several CLECs, including Convergent and COVAD, along with ALTS, have filed complaints both at the state and federal level regarding Verizon's collocation power charges. In apparent response to those complains, Verizon filed modified tariffs in both Massachusetts (Feb. 11, 2001) and New York (March 29, 2001) significantly lowering those rates. Other examples of unnecessary ILEC conditions, including requirements for a POT bay as part of the interconnection

46. It is also important not to forget that new construction requires significant up-front capital investment and, as a result, the CLEC must obtain a source of funds for the project. The decision to invest capital in new construction is based on fairly simple business case principles. AT&T balances the amount of money needed for the construction, the availability of capital, the average payback time on the capital, the maximum contributions such construction will have on the success of a variety of products and services of the company, and the potential risks and returns of other projects competing for the same limited construction dollars. As part of the business case, AT&T considers its existing facilities, including LSO collocations, and how new construction will maximize the usage of those facilities. AT&T then must balance these factors against both the customer's willingness to wait for facilities, and the willingness of a customer to enter into a term contract sufficient to meet AT&T's cost recovery guidelines.

47. But a sufficient pool of capital is often difficult to obtain, particularly at rates that would conform to prudent business practices. Moreover, any capital that is available will generally be allocated first to ventures that have the potential to generate new revenues before being made available for cost reduction/service improvement opportunities. As a result, construction projects to replace existing leased facilities will generally be deferred in preference to other projects that gain new customers or increase spending by existing customers. Even then the construction project must have higher potential returns (lower payback periods) and/or lower risk (uncertainty) of cost savings should access prices drop compared to other projects competing for today's exceedingly scarce capital. In our

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architecture, were identified in the January 29, 2001, Arthur Andersen report to the FCC on Verizon's compliance with the FCC's collocation requirements.

experience, the planned local construction program has always exceeded the available capital, typically by as much as **[proprietary begin]** ********** **[proprietary end]** of funding available at the beginning of the budget year. However, due to unanticipated needs to address customer demands and/or in order to better assure the company's ability to meet short-term earnings requirements of the financial markets, by year's end, the funding available for projects is typically cut by another **[proprietary begin]** ********* **[proprietary end]**.[21]

48. The current economic decline, particularly in the telecommunications industry, has also radically changed both the availability and cost of capital. In the past, both the capital markets and vendors served as ready sources of capital, but the downturn in the economy, coupled with the now almost routine failures of CLECs, have made investors wary, generating what has been aptly called a "capital crisis" in the industry.[22]

49. Unfortunately, there are few alternatives to using the ILECs' facilities. This is due to a number of factors.[23] First, the coverage area, or footprint, of alternative suppliers tends to be quite limited. In most areas, the ILEC is the only provider with facilities. Further, AT&T has found that in markets where a viable alternative is available, its facilities often

[21] Even in circumstances where the economic threshold for self-supply is met, there are factors that preclude construction. For example, in some instances, the incumbent is providing service under term or volume discount arrangements that include substantial termination penalties that make switching to a CLEC prohibitively expensive. In other instances, AT&T is unable to use its own facilities because of limited collocation space or collocation equipment capacity.

[22] FCC News Release, *FCC Chairman Michael Powell Appointed to President Bush's Corporate Fraud Task Force* (July 9, 2002).

[23] AT&T has undertaken a comprehensive plan to convert interoffice facilities to alternative providers whenever possible. While AT&T continues to look for additional opportunities for such conversion, in general AT&T has taken advantage of such alternative where possible.

overlap with AT&T's own facilities.[24] Thus, there is a false impression that the geographic coverage of the CLECs' networks is greater than it actually is.

50. Furthermore, AT&T generally seeks alternate providers that can provide facilities nationwide, or at least in a large number of locations. This preference is based on the fact that the infrastructure costs associated with the negotiation and oversight of an alternate supplier is large, and it must be justified by the existence of a large potential service area. Nevertheless, AT&T evaluates alternatives on a case-by-case basis and occasionally uses a small-scope supplier in order to accommodate specific customer requirements.

51. Another practical limitation to the use of alternate supply is that AT&T requires all of its suppliers to comply with Telcordia standards (or other generally recognized industry standards) and meet Direct Measures of Quality ("DMOQs") that include financial consequences for failure to perform (which the ILECs generally resist for their special access services). Typically, the non-ILEC suppliers that AT&T uses have significantly better performance against these DMOQs,[25] but some potential alternative suppliers either cannot or are unwilling to commit to set performance measures. Thus, they are not considered suitable.

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[24] In fact, as mentioned previously, AT&T has actively sought to partner with other telecommunications carriers in order to combine resources to justify continued growth of the network.

[25] For example, AT&T's supplier monitoring shows that ILECs have a failure frequency of 15.5 percent as compared to a <5 percent failure rate for alternative suppliers. This difference is probably attributable to the fact that AT&T's contracts with alternative suppliers typically include specific monetary penalties for failure to meet required DMOQs. Even with these conditions, however, some alternative providers prove unsatisfactory. In the past, AT&T has had to place a moratorium on using its largest alternate provider because of serious performance issues.

52. Alternative suppliers also must be able to meet OBF standards for pre-ordering, ordering, provisioning, maintenance and repair and billing. Although AT&T has a strong preference for the use of mechanized operational support systems, suppliers must at least have procedures that meet industry minimum standards. It would be impractical for a national competitor to deal with a variety of alternative suppliers unless there were some reasonably standardized means for exchanging critical information and monitoring interrelated business operations. While the ILEC can readily comply with these requirements, not all alternative suppliers can do so or at least not on a mechanized basis.

53. Further, AT&T a number of potential alternative suppliers merely resell the facilities of a third-party, often one AT&T already uses or that AT&T is unable to pre-qualify. As a result, reported counts of facilities do not necessarily reflect service provided through the carrier's own facilities, or even non-ILEC facilities. More importantly, because it is important that AT&T be able to control the quality of the services it offers to its end users, it must have a direct relationship with the owner of the facilities it uses. Thus, unless an alternative supplier truly provides its own access to a location, AT&T generally will not utilize the vendor.

54. Price, of course, is always a consideration. Alternate transport providers almost always price their services comparable to or slightly below the ILEC's special access rates, not at TELRIC levels, and so there is often little advantage to switching to a CLEC provider. And even if a alternate supplier's price offered for individual units of capacity may be attractive (at least compared to the ILEC's inflated special access rates), sometimes the surrounding terms and conditions eliminate a potential supplier. For example, some potential suppliers have sought pre-payments to "reserve" capacity or minimum spending

commitments (*e.g.*, of AT&T's total national spending) that are inconsistent with the scope of coverage it offers. Thus, a "good price" may not always turn out to be a truly competitive price, or at least an unencumbered price.

55. In a previously filed declaration,[26] Mr. Fea explained that AT&T was beginning to identify another concern with respect to the use of alternative suppliers: the risk that suppliers will withdraw from the market, file for bankruptcy protection or liquidate assets in a manner that affects AT&T's contracts. Unfortunately, in the time since the last declaration, filed a little more than one year ago, the situation has gotten far worse. Today, more than half of AT&T's pre-qualified vendors have filed for bankruptcy, and the economic viability of virtually all non-ILEC vendors is in doubt.

56. Indeed, these situations dramatically illustrate the dangers of relying on a "patchwork" network of alternative transport providers. In one case recently, AT&T using a wholesale transport provider to provide certain mission-critical circuits for a particular customer. That carrier was in the middle of bankruptcy proceedings, however, and it looked as though no one was going to make a successful bid for the carrier's operations out of bankruptcy. Thus, AT&T was faced with a situation in which the carrier on which it was relying would cease operations. AT&T had to spend significant resources scrambling to establish an alternative means of providing the service (from the ILEC). Although a bidder did ultimately acquire the carrier's operations in the bankruptcy proceeding, this episode is representative of the significant resources that AT&T has had to divert from

[26] *See* Fea-Taggart Use Restrictions Declaration ¶ 37.

other matters to deal with situations in which the operations of wholesale transport providers on which AT&T was relying have been thrown into doubt.

57. Given the multi-year process required to extend networks, an engineer also cannot rely on obtaining relinquished capacity on a hit-or-miss basis. Even where plans may exist to enter or expand in a market where a particular facility of a bankrupt party may become available, it is highly unlikely that the bankrupt's facilities (1) will be between the right points so as to not necessitate a network reconfiguration, (2) will be available in the right time frame so as to not delay the completion of the network build, and (3) will be available without encumbrances of buying other assets that are not useful.[27] As a matter of common sense, it is simply not rational that one could build a reliable business plan justified entirely, or even in significant part, on acquiring facilities other financially distressed parties.

58. As a result of these impairments, AT&T must rely on ILEC transport most of the time. Today, for the "backbone" portion of AT&T's *local* network, AT&T almost never self-provides DS-1 transport and self-provides DS-3 transport only **[proprietary begin]** ** ****** **[proprietary end]** of the time. Moreover, ILEC facilities are used for more than **[proprietary begin]** ********* **[proprietary end]** of DS-1 and more than **[proprietary begin]** ******** **[proprietary end]** of DS-3 backbone transport.

[27] Even leveraged buy out firms, whose traditional business is the purchase of the assets of other companies, have been reluctant to invest in telecommunication firms. Noting the lack of interest of these firms to acquire assets of telecommunications firms, the WSJ recently noted, "In the case of telecom deals in particular, the main reason: too much risk, even after asset values have dropped so far." See Wall Street Journal, Tuesday, July 9, 2002, "Buyout Firms Find Telecom Too Risky."

B. Impairments In Deploying Loops.

59. When AT&T is deploying its own loops, it faces not only all of the hurdles that it faces when building interoffice transport, but an number of *additional* hurdles as well. Because loops generally serve only a single location and only one or a few customers at that location, it is even more difficult to accurately identify instances where the potential demand, the costs to build and the difficulty of building indicate a wise investment. Moreover, not only does AT&T face all of the same impairments discussed above when it deploys its own loops, it also faces the added requirement of negotiating access to the building. This is all too often an independent barrier to entry. Due to the urgency of service delivery, it often proves impractical or impossible to negotiate access to the entire building (thereby requiring additional negotiation addressing access and compensation), with the result being that the landlord permits AT&T to establish only a "fiber to the floor" arrangement (*i.e.*, AT&T may establish a connection to serve a single customer in a building but not to other tenants).

60. Therefore, it is essential that the original economic justification for the extension is sound. Unlike other investments, the extension of the network to a particular building has no potential for re-deployment and is thus an entirely sunk cost. Therefore, the investment must be made on the basis of actual demand, and not the potential for demand.[28]

[28] In fact, there is always some risk that the demand originally anticipated will evaporate. In the past, LNS has made significant investments in extensions of the network to specific customer locations, only to have the customer abandon the location due to a shift in business plan. In those cases, AT&T is left with stranded plant that has no other use and cannot be re-deployed.

61. When a carrier initiates service and then seeks to transfer the service arrangement from a leased facility from the ILEC to a self-provided or CAP/CLEC-provided facility, it already must deal with two impediments. First, such rolls require the carrier to incur additional expenses to perform the physical work and coordination. Many times, unless significant volumes of service are to be moved, the cost of the move may more than consume the potential savings resulting from use of non-ILEC facilities. Even where the economics are attractive, the carrier must convince the customer to release the circuit (*i.e.*, permit the service to be interrupted for a scheduled and hopefully brief period). Unfortunately many customers are unwilling to provide the release (and all customers on a facility must provide the necessary releases) because they are satisfied with the current service and do not want to take on the risk of a service disruption. Experience has shown that even when presented with reasonable financial incentives, **[proprietary begin]** *** **[proprietary end]** of customers will not agree to such a release.

62. These circumstances also underscore the fact that the incumbents' estimates of how many buildings are on CLEC networks are misleading. A carrier does not truly have a building "on-net" unless it can obtain space in the vicinity of the building terminal (*i.e.*, a means to cross-connect to facilities serving *all* the customers in a premises), or, in the alternative, it is provided space and on-premises conduit/riser capacity to place its own equipment and run its own facilities. As noted above, however, a competitor typically has only one particular customer on-net. In AT&T's case, for example, **[proprietary begin]** *** **[proprietary end]** of the buildings it serves with its own loop facilities are on fiber-to-the-floor arrangements. As a result, there may be cases in which multiple carriers serve a single building, but only the ILEC has the unrestricted opportunity to serve all the end-

users in the building. Furthermore, where a carrier has only fiber-to-the-floor access to a building, it may have to incur all of the same difficulties in securing essential building access if it attempts to serve any subsequent customers in the building.

63. And, as stated earlier, customers will not wait extended periods of time to obtain service because they usually seek new services or added capacity to address immediate business needs. Because of its position as the sole provider typically able to serve local services, the ILEC generally stands ready and waiting to provide service over *existing* facilities. Thus, although a customer might prefer to use an alternative provider, the need for service immediately often trumps that preference. This impairment to the CLEC's ability to compete is somewhat mitigated, but not eliminated, if the CLEC can use UNEs, particularly loop and transport combinations, so as to provide service "now" while determining if a build to that customer or building is feasible – assuming that the customer will consent to have its service transferred in the future.[29]

64. Recently, AT&T has begun to more carefully track what we have labeled "breakage," *i.e.*, situations where although AT&T has facilities to the 'curb', it is unable provide Type I service to the potential customer because AT&T cannot obtain access to a particular building. Between January and June 2002, AT&T has documented that it has lost the opportunity to establish Type I service to a significant number of potential customers.

65. While AT&T has documented the troubles it has had obtaining building access in comments previously filed with this Commission, the examination of "breakage" has

[29] As noted below, some customers will not permit any services to be transferred off of existing ILEC facilities but will only permit the CLEC to provide new services over its facilities.

once again confirmed that the ability for CLECs to gain building access far from ideal. Among the problems we have encountered in the six months are building owners who will not return AT&T calls regardless of level of persistence applied; building owners who are only willing to provide access in exchange for AT&T's agreement to unreasonable terms, including highly inflated monthly fees for placing AT&T facilities in a building; and new concerns, fueled by the events of September 11, 2001, about providing building access to alternative carriers and their employees.[30]

66. If AT&T cannot build its own loop facilities, its preference is to use third-party providers instead of ILECs wherever possible. With respect to loop facilities to individual buildings, however, it should come as no surprise that alternatives to the ILEC are rarely available. AT&T estimates that there are over 3 million buildings or business locations nationwide. In stark contrast, AT&T has been able to provide direct (*i.e.*, non-ILEC) access to slightly more than **[proprietary begin]** **** **[proprietary end]** buildings. Moreover, where AT&T has built its own facilities into a building, in only about **[proprietary begin]** ********* **[proprietary end]** of cases will AT&T be in a position to use its own facilities to serve all customers in the building that seek service from AT&T. Bottom line, AT&T reaches only a fraction of a percent of all commercial buildings using non-ILEC facilities and, of those, only a minority are a configuration that provide unrestricted building access using AT&T's own facilities. Given that ILECs have access to virtually all buildings right now, the situation described hardly supports a

[30] In particular, AT&T has found that many building owners, acting on the advice of security consultants, have decided not to allow additional carriers who might need access to the most vulnerable locations in their buildings, especially rooftops.

finding that reasonable alternatives exist outside the ILEC network and that robust facilities-based competition exists.

67. The financial troubles of the industry, however, are also affecting AT&T's ability to partner with other CLECs to deploy loops. It is also now clear that retail customers are justified in their concern about the viability of their vendor's underlying carriers. As a result, we continue to receive specific requirements from approximately 25% of our customers specifying that AT&T may use its *only* own facilities or those of the ILEC. Thus, the existence of other suppliers to a building may be rendered moot by customer refusal to accept services that employ alternative access.

68. In short, AT&T must rely on ILEC facilities to establish connectivity to individual customer locations in the vast majority of cases. For the "tail" portion of the network,[31] AT&T provides approximately **[proprietary begin]** ******** **[proprietary end]** of its DS1s entirely on its own network. The remaining service is provided almost entirely by utilizing the facilities of the ILECs. ILECs provide more than **[proprietary begin]** ******** **[proprietary end]** of DS-0 tails, more than **[proprietary begin]** ********** **[proprietary end]** of DS-1 tails and about **[proprietary begin]** ******** **[proprietary end]** of DS-3 tails employed by AT&T.[32]

[31] The use of the term 'backbone' refers to the interoffice transport purchased from the ILEC or third-party. The term 'tail' refers to the connection between the end-user customer's premise and the ILEC LSO from which the customer is served.

[32] AT&T also provides **[proprietary begin]** ********** **[proprietary end]** of its DS-3 tails on its own network, although DS-3s constitute a small percentage of the total number of such tails.

IV. The Commission's Prohibition on "Commingling" Is Inefficient And Is Significantly Hinders CLEC Facilities Deployment.

69. Network engineering principles, common sense, and the realities of the competitive marketplace require that a carrier's telecommunications network be designed and utilized in the most efficient manner. Not only AT&T but also other carriers, including ILECs, seek to use existing facilities in a way that avoids unnecessary duplication.

70. In general, networks are engineered to meet two specific goals: (1) handling traffic at peak levels; and (2) meeting a required grade of service. In determining the size of a facility, engineers rely on standard industry tables (referred to as the Poisson and Erlang tables) that provide the specifications for sizing. Further, efficient planning relies on the use of larger facilities whenever possible, rather than multiples of smaller facilities. No switched network is built to accommodate 100 percent of the lines being used 100 percent of the time. By applying accepted "traffic theory," engineers are able to size facilities based on the probability of traffic volumes over the course of time, without consideration to the regulatory jurisdiction of the service.

71. Moreover, these facilities reflect largely fixed costs that must be utilized to their maximum potential if they are to be profitable. Naturally, AT&T seeks to use its own network to its maximum capacity, and configures both its own facilities and the facilities it leases from other providers to make this possible. AT&T's success in this endeavor is essential to avoid unnecessary costs and to ensure that traffic on its network flows efficiently.

72. Unfortunately, the prohibitions on mixing access services and "UNE traffic" on the same facilities presents a significant impediment to a CLEC's ability to attain reasonable economies of scale when they do not have a practical and economic alternative to the ILEC's facilities. Although we understand that historic pricing principles, including special access charges, have, in the past, provided an artificial distinction between facilities used for local and long distance service, these distinctions are the function of regulatory control and inconsistent with efficient network design principles. When configuring a network and making decisions regarding the size and number of facilities needed to optimize network performance, the type of service or class of customer for the communications carried on the facilities makes no difference. In essence, an engineer views *all* traffic as a stream of electrons (or photons), with intervening spaces of dead time when no communication is occurring. The engineer's objective is to get as many electrons or photons as possible to pass over a particular facility per unit of time while still maintaining the integrity of the communications. This ability is reduced substantially by regulatorily sanctioned use restrictions and prohibitions on commingling.

73. We understand that due to current "interim" Commission rules prohibit requesting carriers from converting *existing* special access services to UNE loop-transport combinations unless the carrier can demonstrate that it uses the combinations to provide "a significant amount of local exchange service" to a particular customer.[33] In addition, we understand that the Commission's use restriction orders prohibit "commingling," *i.e.*,

[33] We are limiting our discussion of the Commission's orders to the issue of commingling, and do not address the impracticality of the "safe harbors" defined in *Supplemental Order Clarification*, released June 20, 2000. *See* Declaration of Alice Marie Carroll and Cynthia S. Rhodes (attached to AT&T Comments dated April 5, 2001).

the technically feasible linking of loops or loop-transport combinations with higher capacity special access services. The result of these rules is that CLECs must configure their networks in a manner that is contrary to best engineering practices, inconsistent with the ILECs use of the very same facilities by, and serves only to increase CLEC unit costs vis-à-vis the ILEC, which already has massive economies of scale that CLECs cannot hope to reproduce, especially in the near term.[34]

74. The ban on "commingling" effectively requires CLECs using UNEs to create parallel and inefficient networks within the existing ILEC network. Typically, an efficient network configuration hubs and combines low capacity facilities onto larger and more efficient facilities, regardless of the nature of the communications carried, so as to reduce cost for all services. Under AT&T's existing network management practices for its own facilities (and the network management practices of all efficient carriers, including the ILECs), all traffic from individual customers is moved from the customer premises to the local serving office (either by DS-0 or DS-1 facilities), where it is combined with other traffic onto a higher capacity facility (*e.g.*, a DS-3) and then either directly connected to the AT&T network or routed to an AT&T collocation within another ILEC LSO, where sufficient volumes may be aggregated to permit connection to the AT&T network in a reasonably efficient manner.

[34] In this respect, the imposition of use restrictions raises the CLEC cost structure and reduces CLECs' ability to be price competitive. Further, these limitations generate inefficient consumption of facilities.

75. It is obvious that the most efficient use of any facilities is to fill them all to their maximum reasonable capacity before adding additional facility capacity.[35] By using facilities in this manner, carriers benefit by not requiring part of their existing networks to be "stranded" as unused capacity within inefficiently utilized facilities. If only one party – the incumbent LEC – is allowed to gain these efficiencies, all other parties are at a significant cost disadvantage. And this disadvantage is exacerbated when the only party that can maximize the use of its facilities is the very same party that has huge cost advantages due to its much larger facilities and first mover advantages that it gained as a result of its continuing dominant position in the local market. Further, ILECs who have authority to enter the long distance market, and those who will gain such authority in the future, will only add to their economies of scale, while competitors are forced to operate with sub-optimized networks due to use restrictions and prohibitions on co-mingling.

76. Finally, the use restrictions and prohibitions on commingling – by effectively requiring two redundant, parallel networks in the central office – would require CLECs to over-invest in facilities, because they are prevented from obtaining the same efficiencies as their ILEC competitors. Moreover, these CLECs have no opportunity to get around these restrictions because of (1) the Commission's use restrictions on EELs, which prevented them from aggregating traffic from additional LSOs that could have improved the utilization of their facilities, (2) the high price of special access as an alternative means of aggregating such traffic, and (3) the lack of non-ILEC wholesale alternatives for aggregating such traffic. As a result, these CLECs cannot not achieve reasonable levels

[35] Of course, due to customer churn, vagaries of demand and the need for maintenance channels, a facility is never utilized to 100 percent of its capacity. Nevertheless, design objectives generally are to obtain fills in the range of at least 70-80 percent.

of utilization on their facilities and thus cannot achieve unit costs that would allow them to price their services competitively with the ILEC.

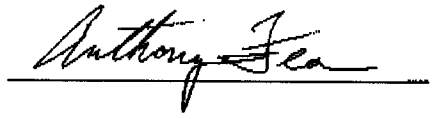
Conclusion

77. In sum, AT&T must rely on ILEC transmission facilities in the vast majority of cases. AT&T does not have enough traffic on most point-to-point routes to justify deploying its own transport, and even when it does, other barriers to entry, such as restrictions on obtaining rights of way, often prevent or greatly delay AT&T from deploying its own facilities. Nor can AT&T generally use wholesale transport providers, because of their lack of availability on the necessary routes, their lack of price advantage, and the dangers of relying on carriers that are increasingly finding themselves in bankruptcy. And AT&T faces even greater obstacles to deploying its own loops, because AT&T must also deal with the fact that landlords often do not permit access to the building or impose conditions that are so onerous that access is effectively denied. Finally, the Commission's ban on commingling UNE and special access traffic is thwarting facilities-based entry, because it essentially requires a CLEC to build two parallel network in the central office, which would be extraordinarily expensive and inefficient.

VERIFICATION

I, Anthony D. Fea, declare under penalty of perjury that the foregoing is true and correct.

Executed on July 15, 2002.



Anthony D. Fea

VERIFICATION PAGE

I hereby declare under penalty of perjury that the foregoing is true and and accurate to the best of my knowledge and belief.

/s/ Anthony Giovannucci
Anthony Giovannucci

July 17, 2002